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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,778	04/27/2001	Atsushi Ito	1945-347	3837

6449 7590 08/07/2003

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EXAMINER

MACCHIAROLO, PETER J

ART UNIT PAPER NUMBER

2875

DATE MAILED: 08/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/842,778

Applicant(s)

ITO ET AL.

Examiner

Peter J Macchiarolo

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-9 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2875

## DETAILED ACTION

### *Response to Amendment*

1. The reply filed on June 12, 2003 consists of changes to the claims, and further, the reply consists of remarks related to the prior rejection of claims in the First Office Action. The above have been entered and considered. However, claims 7-9 are not allowable as explained below.

### *Claim Objections*

2. Claim 7 is objected to because of the following informalities: the claim recites, "pressing a molding tool against the front surface of said resin layer," in line 5. However, there is not proper antecedent basis for a front surface of the resin layer. The Examiner is interpreting this limitation as, "pressing a molding tool against a front surface of said resin layer." Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

Art Unit: 2875

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiramatsu et al (JP 04-298945; "Shiramatsu") in view of Jondrow (USPN 6,072,274; "Jondrow").

5. In regards to claims 7-8, Shiramatsu discloses in figure 5 that a display panel as broadly claimed by Applicant is known in the art. Specifically, the display panel has a resin material (acrylic resin 15 in paragraph [0008]) which has been coated over a front panel (15a) which covers the front surface of a luminous portion (5) to form a resin layer, and the resin layer is formed into a plurality of lenses on the resin layer, each of which lenses condense light from a display cell to the front side of the display panel, and each of which lenses are located on the resin layer at respective areas of the resin layer where the resin layer is in direct contact with the front panel, and the luminous portions comprise a plurality of display cells disposed in a matrix form, and each of the display cells emits light. Shiramatsu further teaches in paragraph [0014] that one suitable method of manufacturing these types of lenses on a display panel is by injection molding.

6. Shiramatsu is silent to forming the lenses by "compression molding."

7. However, Jondrow teaches in column 2, lines 47-57 that these two methods of molding are art-recognized equivalents at the time the invention was made, and that both compression and injection molding are capable of forming resin into extremely small structures with excellent precision and accuracy.

Art Unit: 2875

8. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the disclosed display panel of Shiramatsu by compression molding the lenses, since Jondrow shows that injection molding and compression molding were art recognized equivalents at the time the invention was made and both methods are capable of forming resin into extremely small structures with excellent precision and accuracy.

9. The Examiner notes that in the previous Office Action at paper number 4, page 4, paragraph 10 explains the relationship between compression molding and Applicant's method of manufacture.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiramatsu in view of Jondrow, in further view of Haraga et al (USPN 5,126,620; "Haraga").

11. In regards to claim 9, Shiramatsu and Jondrow teach all of the recited limitations of claim 7 (above).

12. Shiramatsu and Jondrow are silent to the lens layer contains a pigment.

13. However, Haraga teaches in column 10 lines 56-61 that the condensing lenses can be formed by using a pigment corresponding to the luminous layers they cover. Haraga further teaches in column 11 lines 21-24, that and this increases the contrast between the states of full-emission and non-emission in each of the pixels.

14. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the disclosed display element of Shiramatsu using compression molding to form the lenses of Haraga, since Haraga teaches this configuration increases the contrast between the states of full-emission and non-emission in each of the pixels.

Art Unit: 2875

*Response to Arguments*

15. Applicant's arguments with respect to claim 7 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (703) 305-7198. The examiner can normally be reached on 7:30 - 4:30, M-F.

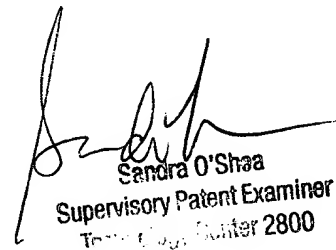
19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the

Art Unit: 2875

organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

20. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

pjm  
July 25, 2003



Sandra O'Shaa  
Supervisory Patent Examiner  
Technology Center 2800